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My Diabetes My Way

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POSTER ABSTRACT

My Diabetes My Way: user experiences, clinical outcomes and health economics impact of an electronic personal health record for diabetes

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Introduction: Diabetes prevalence is increasing at an alarming rate globally and effective interventions are required to mitigate the associated spiralling health service costs. My Diabetes My Way (MDMW) is the NHS Scotland interactive website and mobile app for people with diabetes/carers, with over 40,000 registrants.

Change implemented: MDMW contains multimedia resources aimed at improving self-management and offers clinical records access via an electronic personal health record, sourcing data from primary and secondary care, specialist services and laboratories. Features include: data entry, goal setting; communication tools; automated highly-tailored guidance based on results.

Aim: We aimed to evaluate user experience, assess impact on routinely collected outcome measures and model health economic benefits.

Targeted population and stakeholders: people with diabetes and their carers.

Timeline: MDMW was launched October 2008, with records access live from December 2010.

Highlights: Patients report that MDMW improves their knowledge of diabetes (90.3%) and their motivation to manage it better (89.3%). It allows them to make better use of consultation time (89.6%) and means that they do not need to keep paper records (84.4%) or phone their doctor for results (85.2%). Users found graphs helpful to monitor changes (95.9%) and 83.5% said the system helped them meet their diabetes goals. Anecdotal feedback:

“It is great to be able to view all of my results so that I can be more in charge of my diabetes”

Active users show a reduction in HbA1c, with patients with type 2 diabetes not treated with insulin showing most significant and sustained changes. Intervention patients remained between 4 mmol/mol (females) and 3 mmol/mol (males) below their matched counterparts at 56 mmol/mol after 3 years of follow-up, showing a significant ($p < 0.001$) reduction. A return on investment of at least 6:1 has been shown using the UKPDS outcomes model.

Comments on sustainability: MDMW is now embedded in health service strategy in Scotland and funding has been secured for the next 3-5 years.

Comments on transferability: The service is now implemented in NHS Somerset and currently rolling out in North West London. We are actively looking for opportunities to expand into Europe, the Middle East and United States.

Conclusions: MDMW is a key resource to engage patients in their diabetes management, with over 20,000 patients now having logged in to access their diabetes records online and via the mobile app. We believe this is the first time any population-based records access platform has demonstrated impact on clinical measures and associated health economic benefits.

Discussions: MDMW is a highly-effective low-cost population-based self-management intervention with sustained impact. Current operating costs (~£2/diabetes patient/annum) could offer significant cost savings through delay or reduction of long-term complications, improved process measures and increased life expectancy. Patients report enhanced knowledge and understanding of diabetes and motivation to make positive changes. Improvements in HbA1c are shown within 1 year of follow-up and are sustained at improved levels compared to the matched cohort.

Lessons learned: Engagement and buy-in from primary care practitioners is essential to achieve implementation at scale.

Keywords: personal health record; diabetes; online; records access; informatics
